

Thursday, 30 January 2025



Our Ref: P22.100A-LRP-FVSR-Joondalup Tunnel 2\_1\_FINAL

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ATTENTION: ██████████

**SUBJECT: PTA RADIO SYSTEMS REPLACEMENT (RSR) PROJECT – BIOLOGICAL ASSESSMENT,  
SITE #76 JOONDALUP TUNNEL 2**

### **Project Background**

Western Environmental Pty Ltd (WEPL) was commissioned by UGL Engineering Pty Limited (the Client) to undertake Environmental Site Assessments (ESA) at several sites associated with the Public Transport Authority (PTA) Radio Systems Replacement (RSR) Project.

The RSR Project will upgrade the radio system of Perth's rail transport by replacing the existing analogue system with a digital system. This involves the installation of monopoles and new Western Power (WP) pillars across the rail network. The Project will help to deliver High Capacity Signalling, which will provide increased reliability and flexibility of trains, to support a more efficient rail network for Perth's growing population (Metronet, 2023).

The assessments undertaken included a desktop review of the environmental site conditions and relevant surrounding and historical land uses. Where relevant, site assessments for flora, vegetation and fauna were undertaken to identify present environmental values.

UGL has requested an additional six sites to be surveyed due to design changes and identified Western Power works required within the sites. The purpose of the biological assessment was to identify and qualify the existing vegetation in the areas and determine the project impacts within the proposed clearing footprints.

Based on the survey findings and the site reference designs provided by UGL, site #76 – Joondalup Tunnel 2 was identified requiring a Native Vegetation Clearing Permit under Part V of the *Environmental Protection Act 1986* (EP Act). Site location and clearing extent are displayed in Figure 1.

**Table 1: Site Identification and Land Descriptions**

Site Name	Property Details
<b>Site #76</b>  <b>Joondalup Tunnel 2</b>	P Road
	Land ID Number: 4128806
	LGA: City of Joondalup
	Lot 601 D097196
	Land ID Number: 1326528
	LGA: City of Joondalup
	Lot 100 Hodges Drive, Joondalup
	Lot 100 P019570
	Land ID Number: 1748521
	LGA: City of Joondalup
	24 Sundew Rise, Joondalup
	Lot 19 P402043
	Land ID Number: 4127264
	LGA: City of Joondalup
	22 Sundew Rise, Joondalup
	Lot 11 P402043
	Land ID Number: 4127256
	LGA: City of Joondalup
	25 Sundew Rise, Joondalup
	Lot 20 P402043
	Land ID Number: 4127265
	LGA: City of Joondalup
	Land ID Number: 4127279
	LGA: City of Joondalup







Figure 1: Site Location – Site #76 Joondalup Tunnel 2 Country End & Tunnel Portal

<div><div>07142128</div><div>SCALE</div><div>1:500</div></div> <div><div>SHEET SIZE</div><div>A3 COLOUR</div></div>	<div><div>PROJECT/REPORT NAME</div><div>Environmental Site Assessment Site #51 Lake Walyungup</div></div> <div><div>CLIENT</div><div>UGL Engineering Pty Limited</div></div>	<div><div>Legend</div><div><div><div></div></div>Clearing Footprint</div></div>	<table><tr><th>No</th><th>Description</th><th>Drawn</th><th>Approved</th><th>Date</th></tr><tr><td>A</td><td>Original Issue</td><td>JP</td><td>JB</td><td>21/1/2025</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table> <div><div>NOTES:</div><div>Cadastral boundary (LGATE-002), Base map ESRI Topo. Townships (LGATE-248).</div></div>	No	Description	Drawn	Approved	Date	A	Original Issue	JP	JB	21/1/2025																																														<div><div><div></div></div><div><div>WESTERN</div><div>ENVIRONMENTAL</div></div><div><div>Western Environmental Pty Ltd 08 6244 2310   enquiries@western.com.au Level 3/25 Prowse St, West Perth WA 6005 western.com.au</div></div></div>
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<div><div>COORDINATE REFERENCE SYSTEM</div><div>GDA2020 / MGA zone 50</div></div> <div><div>DATA SOURCE</div><div>LANDGATE AERIAL IMAGERY Summer 2023</div></div>	<div><div>PROJECT NUMBER</div><div>P22.100A</div></div> <div><div>VERSION</div><div>0</div></div>	<div><div>DRAWN BY / REVIEWED BY</div><div>JP/JB</div></div> <div><div>DATE</div><div>21/1/2025</div></div>																																																									



## Survey Methodology

A flora and vegetation assessment was undertaken on 18 October 2024. The following elements were assessed:

- Broad description of vegetation types, including broad species composition and weed invasion.
- Vegetation Condition in consistence with the EPA *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessments* (EPA, 2016).
- Opportunistic sampling of flora species where taxa could not be identified on Site.
- Presence of potential black cockatoo habitat values and other significant fauna habitat values.
- Presence of TECs, Threatened and Priority Flora and other Environmentally Sensitive Areas (ESAs).





## Results

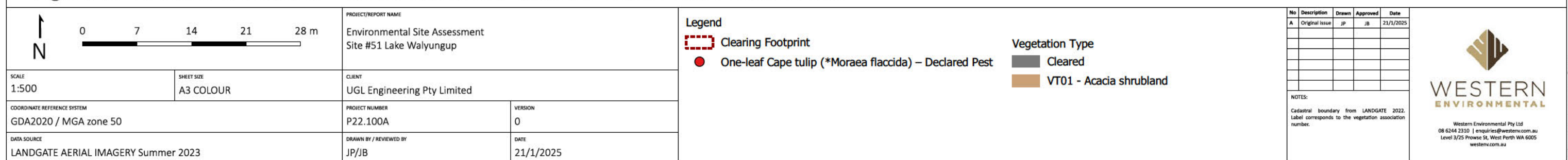
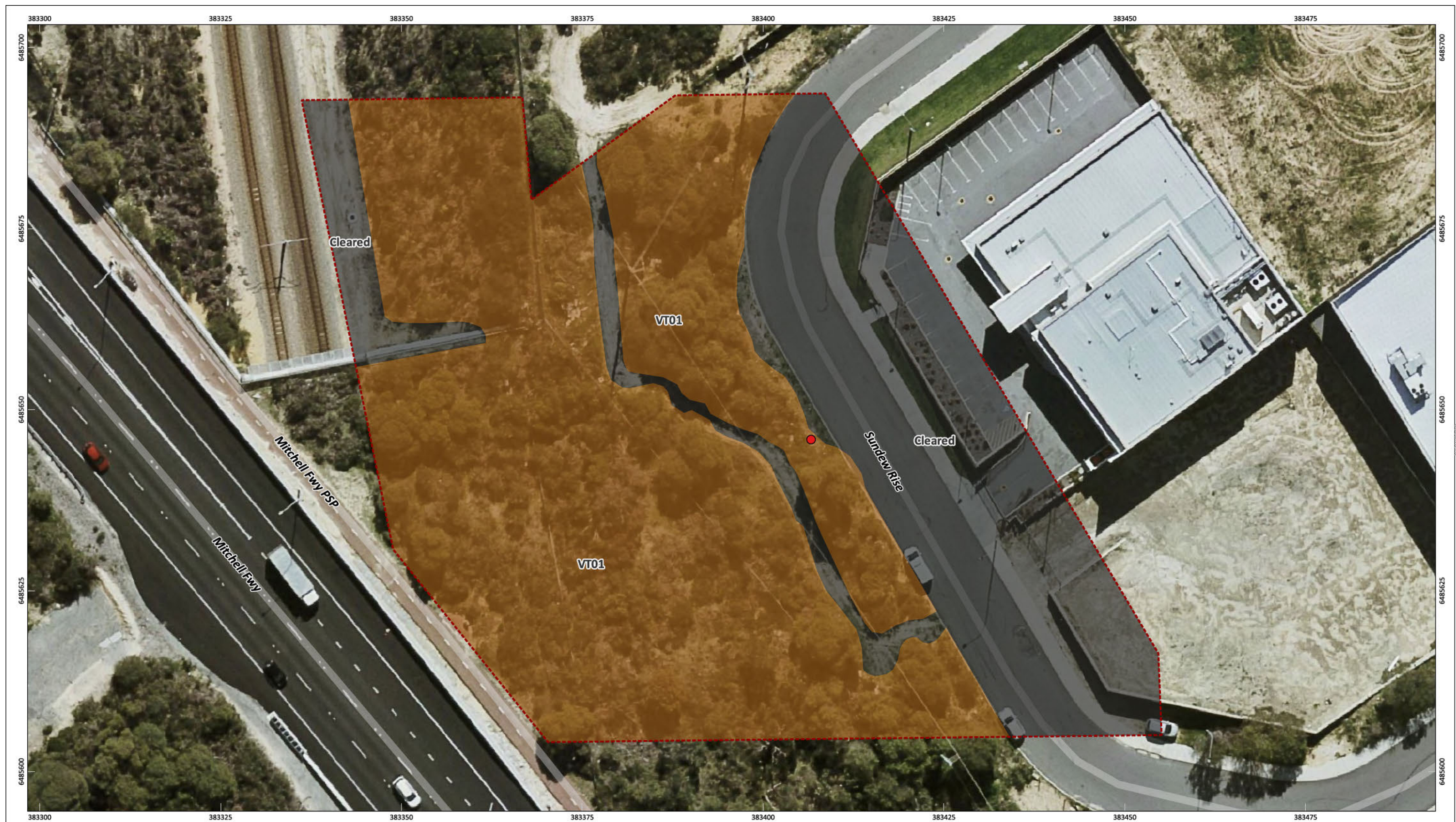
The results of the assessment are presented in Table 2 and displayed in Figure 2 below.

Table 2: Joondalup Tunnel 2 – Site Inspection Form

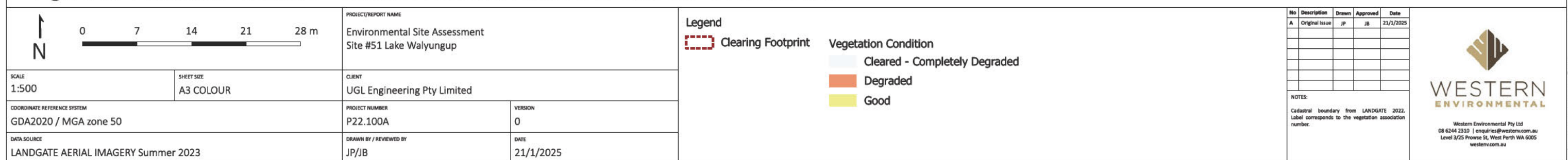
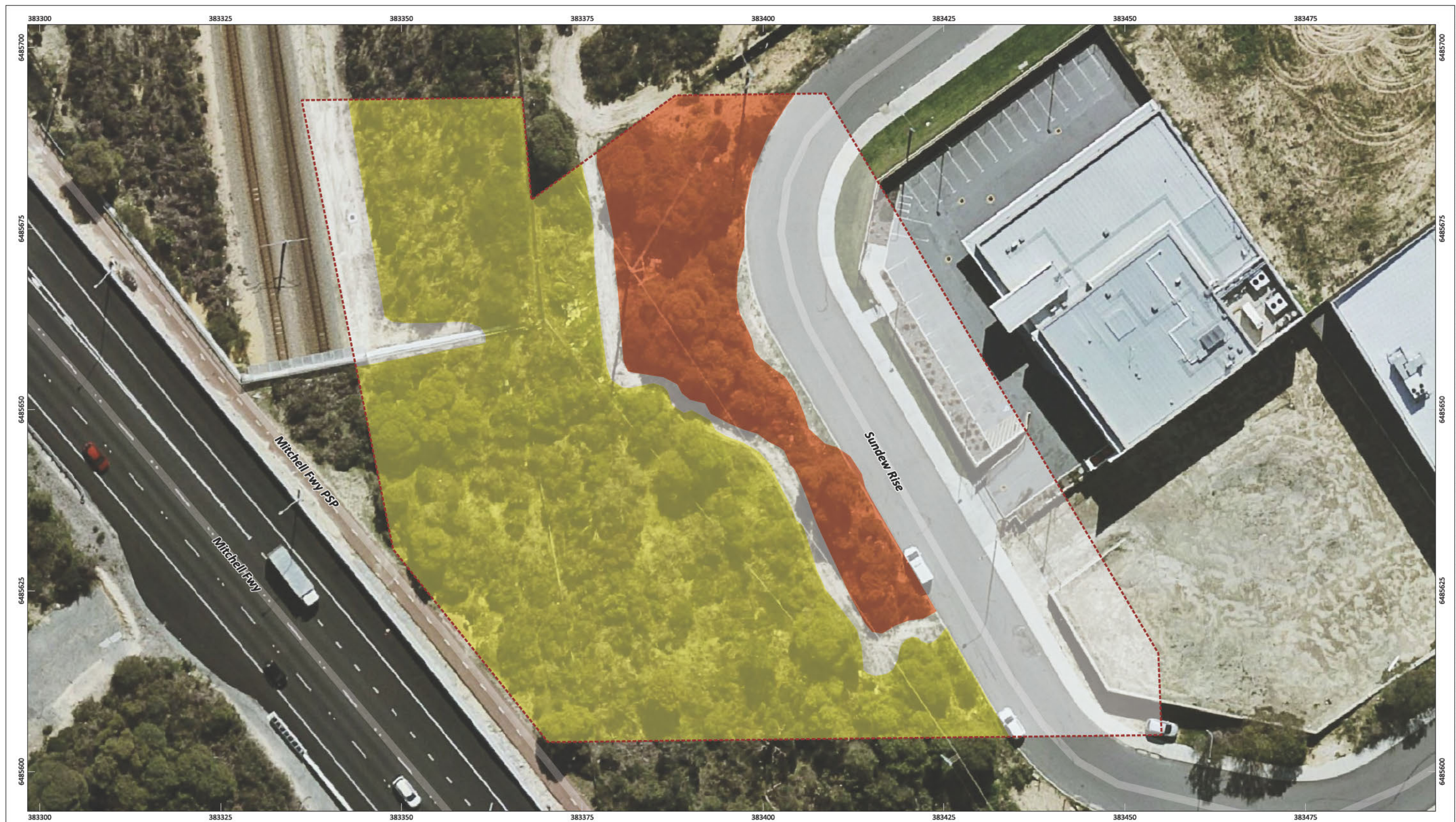
Site Inspection Form – Western Environmental			
Date	18 October 2024	Site Name	76 – Joondalup Tunnel 2 Country End & Tunnel Portal, Joondalup
Coordinates (GDA2020-Z50)	383362.45, 6485647.92 (meter MGA 2020 Zone 50)		Portion No. 7
Environmental Scientist	[REDACTED]		
Vegetation present	Yes		
Vegetation description	VT01 – Acacia shrubland: <i>Acacia</i> sp. and <i>Acacia saligna</i> shrubland over weeds. Ground stratum covered by 25-50% weeds. Scattered young <i>Eucalyptus</i> sp. present. Scattered <i>Banksia sessilis</i> . A patch of One-leaved Cape tulip ( <i>*Moraea flaccida</i> ) (5-25 individuals), was recorded from one location within the clearing extent.		
Vegetation condition	Good to Degraded		
Weed percentage cover	25-75%		
Disturbance	Historic clearing and weeds		
Wetland mapped	No		
Is vegetation indicative of wetland vegetation?	No		
Does the condition align with MU/RE/CCW?	N/A		
Black cockatoo foraging habitat	Yes ( <i>Banksia sessilis</i> )		
Black cockatoo roosting habitat	No		
Black cockatoo breeding habitat	No ( <i>Eucalyptus</i> sp. are too young to have value for black cockatoo)		
Fauna evidence	No		
Site Photos	See Appendix A		
General Comments			
<p>Vegetation appears to be a mixture of landscaping/revegetation. Vegetation is partially representative of that naturally occurring in adjacent areas outside the rail corridor and is therefore considered native under the EP Act.</p> <p>The vegetation within the clearing extent was assessed as VT01 – Acacia shrubland with a total extent of 0.49 ha. The clearing extent contains an additional 0.27 ha of cleared land.</p> <p>Scattered <i>Banksia sessilis</i> is present within the clearing extent. The species has forging value for Threatened Carnaby's black cockatoo.</p> <p>A patch of One-leaved Cape tulip (<i>*Moraea flaccida</i>) (5-25 individuals), was recorded from one location within the clearing extent. One-leaved Cape tulip is a Declared Pest (DP) under the <i>Biosecurity and Agriculture Management Act 2017</i> (BAM Act).</p> <p>See Figure 2 for vegetation mapping.</p>			













## Summary of Residual Clearing Impact and Significance Assessment

A summary of the clearing necessitated by the Project is presented in Table 3. The impact significance was assessed to comply with the EPBC Act *Significant impact guidelines 1.1 – Matters of National Environmental Significance* (DoE, 2013).

Table 3: Clearing Impact for Joondalup Tunnel 2

Site	Impacted Vegetation - Description	Clearing Impact (ha)	Significance Assessment under the EPBC Act
Site #76 Joondalup Tunnel 2	<ul style="list-style-type: none"><li>• Remnant native vegetation within the clearing footprint is in Good (0.38 ha) to Degraded (0.11 ha) condition.</li><li>• The project necessitates clearing of 0.49 ha of native vegetation under the EP Act (<i>Acacia</i> spp. over weedy understorey).</li><li>• No TECs, Threatened or Priority Flora were identified.</li><li>• The impacted vegetation contains some habitat value for Threatened Black cockatoo species, specifically scattered <i>Banksia sessilis</i> which provides foraging value for Carnaby's black cockatoo.</li></ul>	0.49 ha	Not significant

## Conclusions

Based on review of publicly available data and biological assessment of the Site, the following key findings have been identified:

- The following two vegetation types have been identified within the survey area:
  - VT01: *Acacia* shrubland over weedy understory. The vegetation is in Good to Degraded condition. The vegetation is considered representative of the native vegetation in surrounding areas. Therefore, the vegetation is considered native under the EP Act. The vegetation extent within the clearing extent was assessed as 0.49 ha.
  - Out of the 0.49 ha of vegetation to be cleared, 0.38 ha is in Good condition and 0.11 ha is in Degraded condition.
  - Scattered *Banksia sessilis* with foraging value for Carnaby's black cockatoo was identified within the clearing extent.
- The clearing footprint comprises a total area of 0.76 ha, with 0.49 ha of native vegetation (VT01) and 0.27 ha of Cleared land in Completely Degraded condition.





- A patch (5-25 individuals) of One-leaved Cape tulip (*\*Moraea flaccida*) (DP) was recorded from one location within the clearing extent.

Based on the findings of the flora and vegetation assessment Site #76 – Joondalup Tunnel 2, the Project necessitates clearing of 0.49 ha of native vegetation at the Site. A Native Vegetation Clearing Permit will be required.

This report should be read in conjunction with the Schedule - Statement of Limitations. Should you have any queries regarding the above, please contact the undersigned on (08) 6162 8980.

Yours sincerely,

Western Environmental Approvals Pty Ltd



Director

#### Schedule

- Statement of Limitation

#### Appendices

- Appendix A: Site Photos
- Appendix B: Species List



## **Statement of Limitations**

### **Copyright Statement**

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### **Scope of Services**

This environmental report ("this report") has been prepared for the sole benefit and exclusive use of the Client for the purpose for which it was prepared in accordance with the agreement between the Client and WEPL ("the Agreement"). However, in addressing the requirements of the Contaminated Sites Act 2003, an Accredited Contaminated Sites Auditor may be engaged by the Client to undertake review of this report, prior to its submission to the DWER. The report shall be made available and can be relied upon for the purposes of the Contaminated Sites Act.

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In particular, it should be noted that this report is based on a scope of services defined by the Client, and is limited by budgetary and time constraints, the information supplied by the Client (and its agents) and, in some circumstances, access and/or site disturbance constraints.

The scope of services did not include any assessment of the title to or ownership of the properties, buildings and structures referred to in this report, or the application or interpretation of laws in the jurisdiction in which those properties, buildings and structures are located.

### **Reliance on Data**

In preparing this report, WEPL has relied on data, surveys, analyses, designs, plans and other information provided by the Client (or its agents), other individuals and organisations ("the data").

Except as otherwise stated in this report, WEPL has not verified the accuracy or completeness of the data. WEPL does not represent or warrant that the data is true or accurate, and disclaims any and all responsibility or liability with respect to the use of the data.

To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in this report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data.





WEPL does not accept any responsibility or liability for any incorrect or inaccurate conclusions should any data be incorrect, inaccurate or incomplete or have been concealed, withheld, misrepresented or otherwise not fully disclosed to WEPL.

The conclusions must also be considered in light of the agreed scope of services (including any constraints or limitation therein) and the methods used to carry out those services, both of which are as stated or referred to in this report.

### **Environmental Conclusions**

In accordance with the scope of services, WEPL has conducted environmental field monitoring and/or testing in the preparation of this report. The nature and extent of monitoring and/or testing conducted is described in this report.

On all sites, varying degrees of non-uniformity of vertical and horizontal conditions in media (soil, water, air, waste or other media as described in the report) are encountered. Hence no monitoring, common testing or sampling technique can eliminate the possibility that monitoring or testing results/samples are not totally representative of media conditions encountered. The conclusions are based on the data and the environmental field monitoring and/or testing actually undertaken, and are therefore merely indicative of the environmental condition of the site at the time of preparing this report, including the presence or otherwise of contaminants or emissions. It should be recognised that site conditions, including the extent and concentration of contaminants, can change.

Within the limitations imposed by the scope of services, the monitoring, testing, sampling and preparation of this report have been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. To the maximum extent permitted by law, no other warranty, express or implied, is made.

### **Report for Benefit of Client**

This report is confidential. Neither the whole nor any part of this report, or any copy or extract thereof, may be disclosed or otherwise made available to any third party without the prior written approval of WEPL.

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Other parties should not rely on this report or the accuracy or completeness of any conclusions contained in this report, and should make their own enquiries and obtain independent advice in relation to such matters.

If an Auditor is engaged by the Client to undertake review of this report, it shall be made available subject to the terms and conditions of the agreement between the Client and WEPL and the caveats in this statement.

### **Other Limitations**

This report is intended to be read in its entirety, and sections or parts of this report should therefore not be read and relied on out of context.

WEPL will not be liable to update or revise this report to take into account any events or circumstances or facts becoming apparent after the date of this report.





## References

Department of the Environment (DoE). (2013). *Significant impact guidelines 1.1 – Matters of National Environmental Significance*. Accessed on 1 November from [https://www.dcceew.gov.au/sites/default/files/documents/nes-guidelines\\_1.pdf](https://www.dcceew.gov.au/sites/default/files/documents/nes-guidelines_1.pdf)

Metronet. (2023). *High Capacity Signalling: Radio Systems Replacement Fact Sheet*. Retrieved on 1 November 2023 from <https://metronet.wa.gov.au/Portals/31/Project%20Documents/High%20Capacity%20Signalling/Radio%20Systems%20Replacement%20Fact%20Sheet.pdf>.

# Appendix A

## **Site Photos**







**Photo 1**

Date: 18 October 2024

**Description:** Vegetation within VT01 Acacia shrubland within clearing footprint, Degraded



**Photo 2**

Date: 18 October 2024

**Description:** Vegetation within VT01 Acacia shrubland within clearing footprint, Degraded







**Photo 3**

Date: 18 October 2024

**Description:** Cleared path and VT01 Acacia shrubland within clearing footprint, Degraded



**Photo 4**

Date: 18 October 2024

**Description:** Vegetation within VT01 Acacia shrubland, scattered *Banksia sessilis*, within clearing footprint





## Appendix B

# **Species List**



Species	Stratum
<i>Banksia sessilis</i>	Mid
<i>Chamelaucium uncinatum</i>	Mid
<i>Allocasuarina lehmanniana</i>	Mid
<i>Eucalyptus</i> sp. (juvenile)	Mid
<i>Calothamnus quadrifidus</i>	Mid
<i>Grevillea</i> sp. (sterile)	Mid
<i>Hibbertia hypericoides</i>	Ground
<i>Spyridium globulosum</i>	Ground
* <i>Avena barbata</i>	Ground
* <i>Euphorbia terracina</i>	Ground
* <i>Bromus diandrus</i>	Ground
* <i>Briza maxima</i>	Ground
* <i>Lolium perenne</i>	Ground
* <i>Lupinus consentinii</i>	Ground
* <i>Ehrharta calycina</i>	Ground
* <i>Eragrostris curvula</i>	Ground
* <i>Sonchus oleraceus</i>	Ground
* <i>Moraea flaccida</i> (DP)	Ground

